MR. SALYER	SECTION OF HABITAT IMPROVEMENT:
MA. KRUMMES	MR OKINETH PEG
MR. DUMONT	DR. BOURN USET'S
MISS BAUM	
CTION OF OPERATIONS:	SECTION OF LAND MANAGEMENT'S
MR. BALL	MR. ACKERKNECHT
MR. REGAN	
DR. MORLEY	
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	NARATIVE REPORT
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SLADE NATIONAL WILDLIFE REFUGE EASEMENT DISTRICT NO. I NARRATIVE REPORT

SEPT - DEC 1950

SLADE NATIONAL WILDLIFE REFUGE EASEMENT DISTRICT NO. 1 NARRATIVE REPORT Sept- Dec 1950

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SLADE NATIONAL WILDLIFE REFUGE EASEMENT DISTRICT NO.1 NARRATIVE REPORT

SEPTEMBER, CCTOBER, NOVEMBER, DECEMBER 1950

1. GENERAL

Flickertail, Lake Moraine, Wildfang and Yanktonai Refuges were virtually abandoned during this period because of previously damaged structures and the subsequent loss of water. The stuctures are irreparable with the limited appropriations for easement refuges. The signs and posts were removed from the above refuge boundaries. On the remaining refuges the structures were repaired or remained in a generally good condition. Most of the refuges were reposted and damaged signs replaced by new ones.

The migratory waterfowl population was not as high this period as in previous fall periods but this is probably due to the greater scattering of the ducks during this period of abundant water.

No waterfowl depredation complaints were received during the period. One case of beaver damage was reported.

The water levels remained high; perhaps too high for best utilization. No botulism was noted on the refuges.

Precipitation was light during September, October and November in the area of the easement refuges, which made travel and work somewhat easier than in some of the previous seasons.

II. APPERT LAKE

This refuge was visited on September 25 in the company of Mr. Homer Bradley, to determine the extent of flood damage to the cropland of Mr. Pius Biegler ($N/\frac{1}{2}$ Sect. 10 T-134N, R-76W). Various transit readings of the various water levels were taken by Mr. Bradley and a report sent to the Regional Office. Mr. Biegler apparently has registered complaints re the flooding of his land and ensuing damage since 1943.

Mr. Bradley and the writer again visited the refuge on November 5, to check on the reported waterfowl violations on the refuge. Though we remained hidden for several hours until after dark, no trespassers were seen. Large flocks of ducks left the refuge at dusk to feed in the fields west of the refuge.

On November 14 the entire lake was frozen and no waterfowl were seen. The impounded waters are completely surrounded by grassland-either hay or pasture--but approximately 3/4th of the entire refuge is in cropland.

The eroded cut-back from the riprapped spillway channel was filled with rock to stop further damage to the spillway. \$40.00 from Slade funds were expended to complete this work. A total of 17 ½ yards of rock placed.

III. CANFIELD LAKE

Canfield Lake was visited October 18. A number of signs were replaced. The lake level remains high and the adjacent sloughs to the south have much water in them. The island in the lake was completely inundated. The lake has a gravel bottom with very little emergent vegetation at this time. The lake is almost completely surrounded by brush-hawthorn, cottonwood, chokecherry, and willow. A great horned owl was flushed from along the border of the lake. About 2,000 ducks were resting on the lake, 75% mallards.

IV. FLICKERTAIL

The refuge was visited with Mr. Bradley on September 25. All of the signs have been removed; the spillway is gone and the watercourse completely dry. No waterfowl were seen.

V. FLORENCE LAKE

An inspection of the refuge was made on October 18, and a number of signs were replaced. There are no dikes or dams at this refuge. The land-use is grazing but this is not heavy. A large stand of bulrush is scattered throughout the lake, especially on the north end.

VI. LAKE HUTCHINSON

The refuge was visited on October 20 and 21, for the purpose of inspection and the replacement of signs. The dike was in fair condition with some trampling of the edges due to heavy cattle use. Very little grass has colonized the dike and the presence of annual weeds attest to the fact of overgrazing and trampling. No muskrat burrowing was found on the dike. No emergent vegetation is found on the north end of the lake, also due to grazing.

Eight patches of bulrush were found in the small lake known as Unit No. 1. Some emergents (Scipus sp.) are growing in the drainage ditch. The resident farmer reported geese to be resting on the large lake (Unit No. 2) but they were not seen by the writer.

VII. LAKE MCRAINE

When this refuge was visited on October 17, the water level was very low--ca. 3 to 4 feet below the spillway--due to the washout in the west end of the dam, as reported in the Narrative Report of August 1950. On verbal instructions from F. C. Gillett, the signs and posts were removed from the refuge boundaries.

VIII. LITTLE LAKE

An inspection of the refuge was made on September 19, in the company of Mr. Bradley. Considerable damage to the dike was noted and a full report and recommendations for the repair was sent to the Regional Office by Mr. Bradley. The recommendations were approved. On October 25, Mr. Bradley and the writer inspected and replaced damaged signs on the refuge east of the railroad. Two inches of water was flowing over the spillway.

Work on the dike began on October 26. The spillway and culvert sections were removed and the void filled with dirt. The fillin was riprapped from the water's edge to the top of the rise. The overflow will pass over the natural spillway which is well sodded. Equipment (tractor and loader, and dump truck) was from the Long Lake Refuge. A total of \$210.00 was expended in the hiring of men. The work was completed on November 8. The water raised about 3 inches after the removal and closure of the drop spillway and began creeping onto the natural spillway.

The land-use remains grazing and is still heavy, especially near the water's edge.

A good growth of sage pondweed was found in the impounded water near the dike. In the upper reaches of the impounded water, Myriophyllum sp. is found.

IX. LOST LAKE

The refuge was visited by Mr. Bradley and the writer on October 4. There $w_{as} = \frac{1}{2}$ inch of water flowing over the spillway. The ditch was inoperative at spillway level, being 80% plugged with sand due to fill-erosion and cattle trampling. There were no ducks on the large lake. Several herring gulls and 3 avocets were seen. Six beds (ca. 30 feet diameter) of hardstem bulrush were growing near shore. River bulrush was growing

on the shore; this was grazed so there were no flowering heads. Avocets wading out a hundred feet indicated the depth of water in this lake. A carp (ca. 9 inches long) was found near the ditch, probably carried and dropped by wheren or mammal.

On Cotober 10, the writer visited the refuge to repost and replace damaged signs. Few ducks were seen. The Painted Woods Creek running through the refuge has ideal habitat for mink and much sign was seen.

Five hundred mallards were counted on October 17, when the writer continued reposting the refuge. They were all flushed from the sheltered bay on the west side of the lake. Thirty avocets were seen wading on the north side of the lake.

X. SPRINGWATER

On September 25, Mr. Bradley and the writer visited the refuge for the purpose of reposting and inspecting the area. Mr. Bradley was hurt while putting in the first post so operations were suspended. The refuge was visited on November 28 to investigate the beaver dam and the extent of damage reported by Mrs. Elsie Schwab, owner of the S-E4 of Sect. 28, T-133 R-75W. The dam is located on Clear Creek, 1 mile south of the road. One side of the bankis a brushy chokecherry covered slope and the other side is grazed. There was damage to the trees and the water is backed up to the farm yard where the stock is watered. The dam could become a hazard, especially in the spring. The beaver apparently have been there for a season prior to this as evidenced by old cuttings. The owner first noticed beaver workings in September when the dam was begun. Old refuge reports show that the owner had requested trapping permits for beaver prior to this year.

The owner's son had applied for a state trapping permit and a permit was issued from this station to trap on the refuge.

The dam and spillw ay was inspected. The concrete lippof the drop-curvert spillway remains in disrepair. The damage was done this spring. Cover conditions were very good. Fourteen pheasants were counted on the area in the $S \neq E \frac{1}{4}$ of Sect. 28.

XI . SUNBURST

The refuge was visited November 4. The water was about 4 inches below the level of the spillway which was in a generally fatr condition. The dam was in good condition. There were very few ducks on the impoundment. Empty shotgun shells were evidence of illegal hunting.

The land is grazed around the impoundment but not to a great extent. Much of the land adjacent to the water is in shelterbelt or wild prairie grass. The island in the lake is in grass and is ungrazed. A good growth

of sago pondweed was found growing along the south shore.

Twenty pheasants were counted on the refuge.

XIII. WILDFANG

Wildfang Refuge was visited October 19 and the one remaining sign was removed. Water remains in the West Branch of Apple Creek but no impoundment is found due to the damaged dam. One gadwall was seen.

XIII.YANKTONAI

Mr. Bradley and the writer visited the refuge on October 4. No water fowl were seen.

On October 9, the refuge was again visited for the purpose of removing the signs. No ducks were on the impoundment. Empty shotgum shells showed illegal hunting had been going on. On October 10, four pheasants, one pintail, one pied-bill grebe, one greater yellowlegs, and one great blue heron were noted. A beaver dam and cache were found in an aspen glen in the creek in Sect. 31. The impoundment extends back 200 feet.

All signs and posts were removed from the refuge boundary.

XIV. SUMMARY

Perhaps the greatest problem on the easement refuges is the enforcement problem. Evidence or reports of illegal shooting gave credence to this fact. Appert Lake especially is a "hot spot" for poaching activities.

Another problem is the lack of control of the land-use. Almost every refuge was heavily over-grazed which doubtless has diminished the production of waterfowl. The cattle even wade cut into the term to browse on the emergent vegetation. Some of the stuctures should be fenced to exclude grazing and trampling of the dikes.

No photographs were taken during the period.

January 7, 1951

Prepared by Jacob M. Valentine, Jr. Refuge Manager

Approved JAN 1 2 1951

ACTING REGIONAL DIRECTOR

Homer L. Bradley, Refuge Manager

WATERFOWL

Refuge	Appert Lake	Months	of Sept.	to Jan.	194 50
--------	-------------	--------	----------	---------	--------

	(1) Species	(2) First Seen		Peak Conc) entration	Last		(5) Young Produced		(6) Total	
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period	
I.	Swans: Whistling swan Geese: Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose					CONTRACTOR	giller og river sill ruse sill giller sill	THE TANK			
III.	Ducks: Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller			600	11/5	pales, p	TOUR OF THE PARTY			2,000	
	Wood duck Redhead Ring-necked duck Cenvas-back Scaup Golden-eye Buffle-head Ruddy duck				20,70072	ori mergin chi prob	K groot yp	13 9299U			
IV.	Coots					speciapat		bertod			

3-1750 (July 1946)

(over)

SUMMARTES

Tota	l Production:	SUMMATURES
G	eese	Total waterfowl usage during period 5,000
D	uc ks	Peak waterfowl numbers 1,500
C	oots	Areas used by concentrations Impounded waters
		Principal nesting areas this season
		Reported by action Valentine, jr.
		INSTRUCTIONS
(1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
(2)	First Seen:	The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
(3)	Peak Concentra-	The greatest number of the species present in a limited interval of time.
(4)	Last Seen:	The last refuge percent for the species during the season concerned in the reporting period.
(5)	Young Produced:	Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
(6)	Total:	Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based in an analysis of the rest of the form.

of the migrational movement.

Refuge Canfield Lake

Months of Sept.

to Dec.

194 50

	(1) Species		(2) First Seen		entration	(4) Last S		(5) Young Produced		(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I.	Whistling swan	PARTIE E	STORY OF	ALCOHOL SUCH ALCOHOL SUCH	a vise Las pasta	317)2 #8 1 25 4120133	765 4 W 766	STANDA GUN OT MITTER &		goR.
II.	Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose	e There		or dia 2000 or dia 2000	tre soust	does not	cad liter	pung to a	a Leizuleur.	
III.	Ducks: Mallard Black duck Gadwall Baldpate Pintail		STATE	1,500	10/18	oner ores	on toring	of or say	ter aperty of	4,000
	Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck				palant	golious bey naceptif	PACT SAT	terrolle		
	Canvas-back Scaup Golden-eye			600	10/18			4		1,000
	Buffle-head Ruddy duck			20	10/18	en ph com	a serve			100
IV.	Coots				10007	rentine)	nese quitu	betagg		

3-1750 (July 1946)

(over)

SUMMARIES

Tota	l Production:	
G	eese	Total waterfowl usage during period 7,000
D	ucks	Peak waterfowl numbers 2,000
С	oots	Areas used by concentrations Entire lake
		Principal nesting areas this season
		Reported by Jacob M. Valentine, jr.
		INSTRUCTIONS
(1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
(2)	First Seen:	The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
(3)	Peak Concentra-	The greatest number of the species present in a limited interval of time.
(4)	Last Seen:	The last refuge pecerd for the species during the season concerned in the reporting period.
(5)	Young Produced:	Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
(6)	Total:	Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based in an analysis of the rest of the form.

Refuge Florence Lake

Months of Sppt.

to Dec.

194 50

	(1) Species	(2) First Seen		Peak Conce	entration	Last		(5) Young Produced		(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I.	Swans: Whistling swan Geese: Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose		principles principles principles principles	Mark shall	Control of the contro	THE PLEASE		TOT TO S		
III.	Ducks: Mallard Black duck Gadwall Baldpate Pintail			60	10/18	er briter areso als eres ere	origo openin origo, Scao origo,			800
	Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back			14	10/18	dobota T reasys				400
	Scaup Golden-eye Buffle-head Ruddy duck			8	10/18	rad by eq				200
IV.	Coots			80	10/18	familian)	nere code			300

3-1750 (July 1946)

(over)

Tota	l Production:	SUMMARIES
G	eese	Total waterfowl usage during period 2.500
D	uc ks	Peak waterfowl numbers 800
C	oots	Areas used by concentrations Entire lake
	A WAY SAN	Principal nesting areas this season
		Reported by Jacob M. Valentine
		INSTRUCTIONS
(1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
(2)	First Seen:	The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
(3)	Peak Concentra-	The greatest number of the species present in a limited interval of time.
(4)	Last Seen:	The last refuge percent for the species during the season concerned in the reporting period.
(5)	Young Produced:	Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
(6)	Total:	Estimated total number of the species using the refuge during the period. This figure

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries receive careful attention since these data are necessarily based an analysis of the rest of the form.

of the migrational movement.

may or may not be more than that used for peak concentrations, depending upon the nature

WATERFOWL

Refuge Lake Hutchinson Months of Sept. to Dec. 192 50

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total	
Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period	
I. Swans: Whistling swan II. Geese: Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose			TO THE STATE OF TH	IDENTIFE OF	CEST NO. 1	THE CASE	CANAL CONTRACTOR	and successives		
II. Ducks:	e cuiar		400	10/20	The one	egica, ode	BIANG TE	ba reporting	1,200	
Mallard Black duck	PART IN P		200	Samuel State of State	NOT WELL !	GREAT TO			1,000	
Gadwall Baldpate Pintail Green-winged teal	H HANGER		120	16/20	arper abec	en estanta	ng on rat	So unicos y	800	
Blue-winged teal Cinnamon teal Shoveller					Enbouce	7.		rois * 1s.*		
Wood duck Redhead			200	10/20					600	
Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck				Vaces of	and by non	solevasion	252 x 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
				Bank-a	rangoly ten	Date Town				
IV. Coots				TOPET A	Text (ca): (8	ess quique	Selent.	1000		

3-1750 (July 1946)

(over)

SUMMARTES

Tota	l Production:	
G	eese	Total waterfowl usage during period 3000
D	ucks	Peak waterfowl numbers 900
C	oots	Areas used by concentrations Entire lake
	Profite profit of the second	Principal nesting areas this season
		Reported by Jacob E. Valentine, jr.
		INSTRUCTIONS Refuge Mer-
(1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
(2)	First Seen:	The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
(3)	Peak Concentra-	The greatest number of the species present in a limited interval of time.
(4)	Last Seen:	The last refuge pecerd for the species during the season concerned in the reporting period.
(5)	Young Produced:	Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
(6)	Total:	Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since *hese data are necessarily based in an analysis of the rest of the form.

Refuge Little Lake

Months of Sept

to Dec

194 50

	(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total	
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period	
I.	Swans: Whistling swan Geese: Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose	TO SERVICE SERVICES	TOTAL SERVICE	to the spec	ces tedano	TO THE COLUMN	CONTRACTOR CONTRA		Long officially purity subschool of subschool		
III.	Ducks: Mallard Black duck Gadwall Baldpate Pintail	Town to the control of the control o	n to the period sh nes spec	60	10/25	other aper prints are pal dignit	se occurry	al scheol	ou spenie o Se course o	400	
	Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead			3	9/19	yabingi	10.5		677 144 T 1-4-4-	40	
	Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck			2	10/30	serios a sed by on	a superant are	2 Magas		10	
IV.	<u>Coot</u> s	er.			16457	Contract	age defin	brs/or			

3-1750 (July 1946)

(over)

SUMMARTES

Tota	1 Production:			
C	eese	To	otal waterfowl usage during period_	600
D	ruc ks	Pe	eak waterfowl numbers	200
C	oots	Aı	reas used by concentrations	Impounded waters
		Pi	rincipal nesting areas this season_	30
			Reported by Jacob M. Vale	Valentine of
		INSTRUCTION	NS Refuge Mgr.	
(1)	Species:	In addition to the birds listed on a reporting period should be added in given to those species of local and	appropriate spaces. Special atter	
(2)	First Seen:	The first refuge record for the spec period, and the number seen. This		
(3)	Peak Concentra-	The greatest number of the species p	present in a limited interval of ti	me.
(4)	Last Seen:	The last refuge percent for the speciperiod.	Les during the season concerned in	the reporting
(5)	Young Produced:	Estimated number of young produced a sentative breeding areas. Brood coulons of the breeding habitat. Estimated	unts should be made on two or more	areas aggregating
(6)	Total:	Estimated total number of the species may or may not be more than that use of the migrational movement.		

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based in an analysis of the rest of the form.

Refuge Lost Lake Months of Sept to Dec 19# 50

	(1) Species	(2 First		Peak Conc		Last S) Seen	Young P	5) roduced	(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I.	Whistling swan Geese: Canada goose Cackling goose Brant White-fronted goose Snow goose	or to recommend the commendation of the commen		ox the abo	a saluje i ar pasag sacreo gi		TON END	TOT ST		
III.	Ducks: Mallard Black duck Gadwall. Baldpate Pintail			500	10/17	gree the	in retrain	STREET SE	of course	1,200
	Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head				1 20 20 20 20 20 20 20 20 20 20 20 20 20	ed neckin	The state of the s	200 No.		
IV.	Ruddy duck Coots				1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	sections is section in		tall year		
-175	0				and the same					

3-1750 (July 1946)

(over)

Tota	1	Produ	acti	on:

	20000	Total waterfowl usage during period 1.5000
C	leese	Total waterfowl usage during period 1.5000
D	oucks	Peak waterfowl numbers 600
C	coots	Areas used by concentrations Bay in the west end.
		Principal nesting areas this season
		Reported by Jacof M. Valentine
	he are seen	Sacob M. Valentine, jr.
		INSTRUCTIONS Refuge Mar.
1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
2)	First Seen:	The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
3)	Peak Concentra- tion:	The greatest number of the species present in a limited interval of time.
(4)	Last Seen:	The last refuge pecerd for the species during the season concerned in the reporting period.
(5)	Young Produced:	Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
(6)	Total:	Estimated total number of the species using the refuge <u>during the period</u> . This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based of an analysis of the rest of the form.

	Refuge_	Sociago	ter	Mont	hs of S	ept.	to Dec.	192	50	
	(1) Species	(2) First		(3) Peak Conce		(4) Last S		(5 Young Pr	oduced	(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I.	Swans: Whistling swan Geese: Canada goose Cackling goose	No. 1	mierfowl	were seen d	e to the	lataness of	the sessor	when the	refuse was	
	Brant White-fronted goose Snow goose Blue goose			ited.		tota tota	a se meda libra si			
III.	Ducks: Mallard Black duck Gadwall Baldpate Pintail Green-winged teal			Aride American	FR LENGTH	THE BEARING	de contecti en poets centra	of seems	en almos è	
	Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead					galm.co	a ter	X S		
	Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck				thest	o og påvene	Plant Plan	269		
IV.	Coots				The Park	Caller 6		period		

3-1750 (July 1946)

(over)

SUMMARTES

Tota	1 Production:	OUMAILES .
C	eese	Total waterfowl usage during period
D	ucks	Peak waterfowl numbers
C	coots	Areas used by concentrations
	entral apply on the second	Principal nesting areas this season
		Reported by Jacob M. Valintine
		INSTRUCTIONS
(1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
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(3)	Peak Concentra-	The greatest number of the species present in a limited interval of time.
(4)	Last Seen:	The last refuge percent for the species during the season concerned in the reporting period.
(5)	Young Produced:	Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
(6)	Total:	Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based an analysis of the rest of the form.

Refuge Sumburst

Months of

Sept to Dec

194 50

	(1) Species	(2 First		Peak Conc) entration	(4) Last S		Young P		(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Perio
I.	Swans: Whistling swan	erresponde primeros	ener of	Applications of the control of the c	Coming to	more a	TOTAL SECTION	of English	eas de reis	
II.	Geese: Canada goose	direct for period is		es per epe	drense si	10 Jun 1	ere où epus	parent you p	o legolatos	
	Cackling goose Brant White-fronted goose				•					
	Snow goose Blue goose			WE BEAD!	ne cores	good Sup	and Adam	rightic as	274.02	
II.	Ducks: Mallard Black duck		NEG ETES	4	11/4	er ertur	Canas _a			200
	Gadwall Baldpate	STATE OF THE		Alde liste	in appra	Ther spec	de people	of or re-	de gorgan e	
	Pintail Green-winged teal Blue-winged teal				A SERVICE .					
	Cinnamon teal Shoveller Wood duck					5abeats				
	Redhead Ring-necked duck			6	11/4	T Mair profit	Calleba rota	o augus		80
	Canvas-back Scaup Golden-eye			4	11/4					40
	Buffle-head Ruddy duck				Tuesday	reig på col	s supprer can	peta		
CV.	Coots				Total a	Marioni n	Ale quign	becque		
	of a consistent									

3-1750 (July 1946)

(over)

SUMMARIES

Tota	1 Production:	
G	eese	Total waterfowl usage during period 400
D	ucks	Peak waterfowl numbers 200
C	oots	Areas used by concentrations Impounded waters
	AND COMMENTS OF THE PROPERTY O	Principal nesting areas this season
		Reported by Accob M. Valentine, jr.
-		INSTRUCTIONS Refuge Mgr.
(1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
(2)	First Seen:	The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
(3)	Peak Concentra-	The greatest number of the species present in a limited interval of time.
(4)	Last Seen:	The last refuge pecerd for the species during the season concerned in the reporting period.
(5)	Young Produced:	Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
(6)	Total:	Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based an analysis of the rest of the form.